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|  |             |                      |                          |                  |
|--|-------------|----------------------|--------------------------|------------------|
| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
| 10/509,217   | 06/06/2005  | Gareth Peter Evans   | 2733.13US01              | 5121             |
| 24113 7590 12/29/2006<br>PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A.<br>4800 IDS CENTER<br>80 SOUTH 8TH STREET<br>MINNEAPOLIS, MN 55402-2100 |             |                      | EXAMINER<br>WARD, JOHN A |                  |
|  |             |                      | ART UNIT<br>2875         | PAPER NUMBER     |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE            |                  |
| 3 MONTHS   |             | 12/29/2006           | PAPER                    |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/509,217

Applicant(s)

EVANS ET AL.

Examiner

John A. Ward

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>060605</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 22, 26, 28 and 29-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Ryan (US 6,964,501).

Regarding claims 22-26, 28 and 29-35 Ryan ('501) discloses a peltier cooled LED lighting assembly having a light emitting diode device 10, a thermo electric cooling device or peltier cooling device 6, a heat conductor 13 and a plurality of heat spreaders 3.

Claim 36 is rejected under 35 U.S.C. 102(e) as being anticipated by Ryan (US 6,964,501).

Regarding claim 36, Ryan ('501) discloses a peltier cooled LED lighting assembly having a light emitting diode device 10, a thermo electric cooling device or peltier cooling device 6, a heat conductor 13 and a plurality of heat spreaders 3.

Claims 37 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Ryan (US 6,964,501).

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Regarding claims 37 and 42, Ryan ('501) discloses a peltier cooled LED lighting assembly having a light emitting diode device 10, a thermo electric cooling device or peltier cooling device 6, a heat conductor 13 and a plurality of heat spreaders 3 however, Ryan does not teach the method of cooling a light it would be inherent to provide a method of cooling a light since each limitation is met by Ryan.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 23-25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan.

Regarding claims 23-25 and 27, Ryan discloses all the limitations of the claimed invention as cited in the rejection above, but does not disclose the temperature of the peltier, optical power density of the LED or the energy peak wavelength or coolant. It

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would have been obvious to one having ordinary skill in the art at the time the invention was made to use such features as cited in the claims as cited above, since it has been held that where the general conditions of a claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Aller, 105 USPQ 233.***

Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan.

Regarding claims 38-41, Ryan discloses all the limitations of the claimed invention as cited in the rejection above, but dose not disclose the temperature of the peltier, optical power density of the LED or the energy peak wavelength or coolant. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use such features as cited in the claims as cited above, since it has been held that where the general conditions of a claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. ***In re Aller, 105 USPQ 233.***

### ***Conclusion***


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Waters (US 6,969,180) shows a LED light apparatus and methodology.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is 571-272-2386. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAW  
December 21, 2006



**JOHN ANTHONY WARD**  
**PRIMARY EXAMINER**